

EXPLORATION TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

March 10, 2004

TO: Internal File

THRU: Peter H. Hess, Environmental Scientist III/Inspector, Team Lead

FROM: Jerriann Ernstsens, Ph.D., Environmental Scientist/Biology

RE: Coal Exploration for Seam Thickness and Quality, Canyon Fuel Company, LLC.,
Dugout Mine, C/007/039, Task #1834

SUMMARY:

The Division received the Notice of Intention that addresses the minor coal exploration drilling of three holes on February 9, 2004. This memo reviews the biology and archeology sections of the Notice.

The Permittee plans to rotary spot and wireline core-drill DUGO104 in 2004, and DUGO205 and DUGO105 in 2005. The plan shows that all drill holes are located within the proposed SITLA Dugout Coal Tract (SDCT). The operator will reach the drill hole sites from existing unimproved roads.

EXPLORATION TECHNICAL ANALYSIS:

COMPLIANCE DUTIES

Regulatory Reference: 30 CFR 772.13; R645-202.

OPERATIONAL STANDARDS

Regulatory Reference: 30 CFR 772.13; R645-202-100.

Analysis:

The Permittee plans to rotary spot and wireline core-drill DUGO104 in 2004, and DUGO205 and DUGO105 in 2005. Drill hole DUGO104 is near the western edge of the SDCT

in section 20. Drill holes DUGO205 and DUGO105 are near the northwestern edge of the SDCT in section 17.

There is no cultural and historic evaluation that focuses on the SDCT. The Notice does not adequately address protective measures for possible cultural and historic sites at the proposed disturbed sites. The Permittee must notify the Division if cultural or historic sites are discovered during operations or reclamation (R645-201.225).

Biology

The Division has concerns for elk and deer populations, as well as, streambank habitat. The wildlife map (Plate 3-2, 2004) shows that the drill hole sites are in elk high value yearlong and deer critical summer ranges. The Permittee plans to drill in the third week of July 2004/2005, which follows the calving exclusionary period (May 15 through July 5). The Division believes that the exploration project will not impact these ungulate populations because of the project time schedule.

The drill hole sites DUGO104 and 105 are near the Pace Creek and an unnamed drainage or stream channel. The DUGO104 site is approximately 1000' from Pace Creek, while the DUGO105 site is 250' from an unnamed drainage or stream channel. The dimensions of the disturbances are 100' x 100'. The Permittee plans to improve the roads leading to these sites by grading or applying gravel if necessary. The Division believes that the exploration project will not impact these streambank habitats.

There is no raptor evaluation that thoroughly covers the SDCT, specifically sections 17 and 20. The Division is concerned that exploration and reclamation operations could disturb nesting raptors. Exploration operations for this project will occur within the raptor exclusionary time frame (approximately January 1 through August 31). A May survey will reveal if birds are nesting in the area of concern. If birds are nesting near the sites, the Division will coordinate with DWR to determine what measures the Permittee must take to minimize impact. The Permittee must conduct raptor surveys in May 2004/2005 to assess existing nests and potential raptor habitat within the SDCT project area (R645-202.231). The Permittee must include a description of the measures that will protect observed raptors and nests. (R645-201.225).

There is no survey for threatened, endangered, or sensitive (TES) species that includes the disturbed areas within the SDCT. The Notice mentions that bald eagles and peregrine falcons (no longer listed) are likely to exist within the exploration area. The Permittee needs to reassess whether other TES species or their habitat, including the Mexican Spotted Owl, are within the disturbed area. The Permittee must include a description of the measures that will protect TES species and their habitats from the proposed project. (R645-201.225, R645-202.231).

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The Permittee mentions that drilling will include pumping water from Pace Creek and the right fork of Dugout Creek. The Notice does not adequately address possible adverse effects to the four Colorado River endangered fish species: the Colorado pikeminnow, the humpback chub, the bonytail chub, and the razorback sucker. The Permittee must provide the anticipated volume of water that will be extracted during the drilling operations. (R645-202.231). The Division anticipates that operations will consume very small volumes of water.

Findings:

The Division considers the information inadequate to meet the minimum requirements of the Biology section of the Operational Standards regulations. Prior to approval, the Permittee must act in accordance with the following:

R645-201-225, 1) The Permittee must notify the Division if cultural or historic sites are discovered during operations or reclamation. 2) The Permittee must include a description of the measures that will protect observed raptors and nests. 3) The Permittee needs to reassess whether TES species or their habitat, including the Mexican Spotted Owl, are within the disturbed sites. The Permittee must include a description of the measures that will protect TES species and their habitats from the proposed project (also R645-202.231).

R645-202-231, 1) The Permittee must conduct raptor surveys in May 2004/2005 to assess existing nests and potential raptor habitat within the SDCT project area. 2) The Permittee must provide the anticipated volume of water that will be extracted during the drilling operations. The Division anticipates that operations will consume very small volumes of water.

RECLAMATION STANDARDS

Regulatory Reference: 30 CFR 772.13; R645-202-200.

Analysis:

Revegetation

The Permittee plans to immediately seed each of the 0.25-acre disturbed sites approximately eight weeks following the start of the drilling projects. This September seeding schedule will occur in the fall season, which will increase the potential of success. The goal of seeding the 0.25-acre sites is to stabilize the sites by seeding with a diverse species mix that has a similar seasonal variety as the neighboring environment.

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The vegetation map (Plate 3-1, 2004) shows that the drill hole sites are in sage (DUGO205), deciduous streambank (DUGO105), and mixed conifer (DUGO104) plant communities. There is no vegetation survey that specifically lists the species within the SDCT. The Richardson vegetation survey (1980; Appendix 3-1), however, details primary plant species found in communities similar to those within the drilling project.

The seed mix contains nine native species – two are in the Richardson survey. The species and planting rates are the following:

Species	PLS/sq.ft.
Kentucky bluegrass	16
Mountain brome	3
Sandberg bluegrass	25
Bluebunch wheatgrass	12
Bottlebrush squirreltail	4
Mountain lupine	1
Rocky Mountain penstemon	11
Wyoming big sage	29
Snowberry	5
TOTAL	106

Findings:

The Division considers the information adequate to meet the minimum requirements of the Revegetation section of the Reclamation Standards regulations.

RECOMMENDATIONS:

Do not approve the Notice until the Permittee addresses all deficiencies.